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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,568	01/24/2001	Steven Mastrianni	YOR920000800US1	3575

29683 7590 08/31/2005

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EXAMINER	
BRUCKART, BENJAMIN R	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,568	MASTRIANNI, STEVEN	
	Examiner	Art Unit	
	Benjamin R. Bruckart	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Claims 1-21 are pending in this Office Action.

Claims 1, 10 and 16 are amended.

Claim 21 is new.

The 35 U.S.C. 112, second paragraph rejection on claims 1, 10 and 16 is withdrawn in light of applicant's amendment.

Specification

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. (Page 2, 4th paragraph). The examiner suggests removing but applicant may replacing it with something along the lines of www dot salutation dot org.

Claim Rejections - 35 USC § 112

Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The "salutation discovery protocol" is not described in sufficient detail in the specification page 3, enabling one of ordinary skill in the art to implement the feature within the claimed invention. The specification only mentions the standard is "proposed" and "not commercially deployed."

Response to Arguments

With regards to claims 1-20, applicant's arguments filed in the amendment filed 7/19/05 have been fully considered but they are not persuasive. The reasons are set forth below.

With regards to claim 21, applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-5, 10-11, 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No 2002/0133573 by Matsuda et al.

Regarding claim 1, a computer implemented method for discovering data communication network configuration information (Matsuda: page 3, paragraphs 35-36), comprising steps of:

invoking a network discovery function (Matsuda: page 3, paragraphs 35-36);

executing the invoked network discovery function for examining the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, paragraphs 34-36) that are executed sequentially (Matsuda: Fig. 6, page 6, para 60); and

while executing the invoked network discovery function, building a list containing discovered network configuration information (Matsuda: page 3, paragraph 36).

Regarding claim 2, a method as in claim 1, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34-36), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 4, a method as in claim 1, where building the list operates so as to not overwrite already discovered network configuration information (Matsuda: page 9, para 107; register new NOA service and add to list, maintained on server).

Regarding claim 5, a method as in claim 1, wherein the plurality of network configuration discovery protocols are executed in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 10, a digital data storage media that is readable by a computer and that stores a software program that implements a process for discovering data communication network configuration information (Matsuda: page 3, para 30-31), the software program causing the computer to operate so as to invoke a network discovery function (Matsuda: page 3, para 35-36), to execute the invoked network discovery function to examine the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, para 34-36) that are executed sequentially and, during the network examination, to build a list containing discovered network configuration information (Matsuda: page 3, para 36).

Regarding claim 11, a digital data storage media as claimed in claim 10, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 13, a digital data storage media as claimed in claim 10, wherein the computer executes individual ones of the plurality of network configuration discovery protocols sequentially in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34) Figure 6; page 6, paragraph 60; dhcp then dns is an order).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,937,162 by Funk et al.

Claims 6-9, 14-17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,128,926 by Perlman et al.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of U.S. Patent No. 5,128,926 by Perlman et al in further view of U.S. Patent No. 5,937,162 by Funk et al.

Regarding claim 3,

The Matsuda reference teaches a method as in claim 2, for discovering network configuration information with DNS protocols.

The Matsuda reference does not explicitly state using specific DNS protocols.

The Funk reference teaches discovering network configuration information through DNS wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS MX Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64- col. 12, line 6), a DNS Start of Authority Protocol, a DNA NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use DNS protocols to discover network configuration information as taught by Matsuda while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Regarding claim 12,

The Matsuda reference teaches the digital data storage media as claimed in claim 11, for discovering network configuration information with DNS protocols.

The Matsuda reference does not explicitly state using specific DNS protocols.

The Funk reference teaches discovering network configuration information with DNS wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS MX Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64- col. 12, line 6), a DNS Start of Authority Protocol, a DNA NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use protocols to discover network configuration information as taught by Matsuda while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Regarding claim 6,

The Matsuda reference teaches a method as in claim 1, wherein a list containing discovered network configuration information is stored.

The Matsuda reference does not explicitly state storing the list in a database but does talk about a distributed database.

The Perlman reference teaches a list stored as a location object in a persistent database (Perlman: col. 4, lines 29-41).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Claims 7-9 are rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Regarding claim 7, a method as in claim 6, wherein a location object is imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 6, lines 40-51; removed or col. 5, lines 41-63).

Regarding claim 8, a method as in claim 6, wherein a location object is exported from the persistent database (Perlman: col. 5, lines 41-63), and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

Regarding claim 9, a method as in claim 6, wherein an application program queries the persistent database for a location object, and uses the network configuration information stored in the location object while connected to a network from which the location object was derived (Perlman: col. 6. lines 15-18; col. 10, lines 49-63; cost; col. 1, lines 20-30).

Regarding claim 14,

The Matsuda reference teaches the digital data storage media as claimed in claim 10, for discovering network configuration information and building a a list containing discovered network configuration information is stored.

The Matsuda reference does not explicitly state storing the list in a database but does talk about a distributed database.

The Perlman reference teaches wherein the computer causes the list to be stored as a location object in a persistent database (Perlman: col. 4, lines 29-41), wherein a location object may be imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 5, lines 41-63), and wherein a location object may be exported from the persistent database and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Claim 15 is rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Regarding claim 15, a digital data storage media as claimed in claim 14, wherein the computer operates to respond to an application program that queries the persistent database for a location object, to return the location object to the application for use by the application while connected to a network from which the location object was derived (Perlman: col. 6. lines 15-18; col. 10, lines 49-63; cost; col. 1, lines 20-30).

Regarding claim 16,

The Matsuda reference teaches a digital data processing system comprising a data processor, a memory, and at least one network adapter for attaching the data processor to a data communication network (Matsuda: page 3, para 31-32), said memory storing a software program that controls said data processor for discovering data communication network configuration information by examining the network using individual ones of a plurality of network configuration discovery protocols (Matsuda: page 3, para 34-36) that are executed sequentially and, during the network examination, said location object containing discovered network configuration information for use by an application while attached to the network (Matsuda: page 3, paragraph 36).

The Matsuda reference teaches the memory but does not explicitly state a database.

The Perlman reference teaches storing a location object in a persistent database portion of memory (Perlman: col. 4, lines 29-41).

The Perlman reference further teaches using link state packets and complete number sequences to update their databases while reducing the probability of errors and computational burden on routers (Perlman: col. 3, lines 8-25).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while storing it in a database as taught by Perlman in order to reduce the probability of errors and computation burden on routers while updating databases (Perlman: col. 3, lines 8-25).

Claim 17, 19-20 are rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Perlman et al and Matsuda et al.

Regarding claim 17, a digital data processing system as claimed in claim 16, wherein the plurality of network configuration discovery protocols comprise a set of protocols selected from a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34).

Regarding claim 19, a digital data processing system as claimed in claim 16, wherein the data processor is controlled to execute individual ones of the plurality of network configuration discovery protocols sequentially in a sequence comprised of a Salutation protocol, a Service Location Protocol (SLP) (Matsuda: page 8, paragraph 85), a Lightweight Directory Access Protocol (LDAP), Domain Name Services (DNS) protocols (Matsuda: page 3, paragraph 34), and a Dynamic Host Configuration Protocol (DHCP) (Matsuda: page 3, paragraph 34) Figure 6; page 6, paragraph 60; dhcp then dns is an order).

Regarding claim 20, a digital data processing system as claimed in claim 16, wherein a location object is imported into the persistent database (Perlman: col. 7, lines 23-31), or exported from the persistent database (Perlman: col. 5, lines 41-63), and wherein a location object may be exported from the persistent database and made available to be imported into another persistent database (Perlman: col. 6, lines 7-34).

Regarding claim 18,

The Matsuda and Perlman references teach a digital data processing system as claimed in claim 17 for discovering network resources and storing them in a database.

The Matsuda and Perlman references do not explicitly state DNS protocol specifics.

The Funk reference teaches wherein the DNS protocols comprise at least one of a DNS SRV Record protocol, a DNS Mx Record protocol (Funk: col. 2, lines 46-51; col. 11, lines 64-col. 12, line 6), a DNS Start of Authority Protocol, a DNA NS protocol and a DNS PTR protocol.

The Funk reference further teaches by relieving the queues of the responsibility of querying the Internet DNS, and by querying the Internet ahead of the scheduled e-mail delivery time the DNS server speeds message delivery (Funk: col. 12, lines 6-11).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to use protocols to discover network configuration information as taught by Matsuda and Perlman while employing DNS MX Record protocol as taught by Funk in order to speed up message delivery (Funk: col. 12, lines 6-11).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2002/0133573 by Matsuda et al in view of "Resource discovery protocol for mobile computing" in Mobile Networks and Applications by Perkins et al.

Regarding claim 21, a computer method for discovering data communication network configuration information (Matsuda: page 3, paragraphs 35-36), comprising:

invoking a network discovery function (Matsuda: page 3, paragraph 34-36);

executing the invoked network discovery function for examining the network using a SLP discovery protocol (Matsuda: page 8, para 85);

executing the invoked network discovery function for examining the network using DNS discovery protocol (Matsuda: page 3, paragraph 34-36);

executing the invoked network discovery function for examining the network using DHCP discovery protocol (Matsuda: page 3, paragraph 34-36; pages 1-2, para 11);

while executing the invoked network discovery function, building a list containing discovered network configuration information (Matsuda: page 3, paragraphs 36; page 8, para 85).

The Matsuda reference does not explicitly state a salutation protocol.

Perkins et al reference teaches:

executing the invoked network discovery function for examining the network using a salutation discovery protocol (Perkins: page 453, section 4.4);

executing the invoked network discovery function for examining the network using LDAP discovery protocol (Perkins: page 452, section 4.2).

The Perkins reference further teaches the main objection of resource discovery protocol is to provide a light-weight protocol which can be used to discover network resources and alleviate the problem of finding and using computer resources that are located external to the computer (Perkins: page 447, para 3; pg 448, 2.1 RDP).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a list of discovered network configuration information as taught by Matsuda while employing Salutation protocol and LDAP as taught by Perkins in order to discover network resources and alleviate the problem of finding and using computer resources that are located external to the computer (Perkins: page 447, para 3; pg 448, 2.1 RDP).

PRIOR ART

"Mapping Salutation Architecture APIs to Bluetooth Service Discovery Layer" by Brent Miller in Bluetooth WHITE PAPER (1 July 1999) Doc. No. 1.C.118/1.0 teaches Salutation and service discovery protocols with SLP.

U.S. Patent No. 6,892,230 by Gu et al teaches discovery process or services and configuration data including LDAP and SDP protocols.

U.S. Patent No. 6,862,594 by Saulpaugh et al teaches a method and apparatus to discover services using flexible search criteria.

REMARKS

The examiner requests information about the salutation protocol in the form of an IDS or reference in which the salutation is explained and established. Applicant's specification is not sufficient and the web address is unavailable or non-existent.

The Applicant Argues:

Applicant argues the Matsuda does not teach "executing a network discovery function using a plurality of network configuration protocols that are executed sequentially."

In response, the examiner respectfully submits:

The Matsuda reference teaches the cited limitations. Matsuda clearly teaches executing network discovery function (Matsuda page 8, para 35-36). Here Matsuda shows the invention using network discovery protocols to discover DNS and DHCP services. Applicant's claim 2 further defines the network configuration protocols to include both DNS and DHCP.

The limitation defining the network discovery functions using a plurality of network configuration protocols is also taught.

Matsuda shows the invention checks to see if DNS and DHCP services are running in the network. If they are running, the NOA device may accept configuration data from them. This

illustrates that the NOA device seeks out to discover services running on the network. The invention executes the network discovery and initiates DNS and service discovery (Matsuda: page 6, para 60). DNS illustrates the preamble of the claim by discovering DNS services and then requesting an address for a host. The client uses the host to establish a connection with the host (Matsuda: page 1, para 7-8). The data obtained from the DNS server is configuration data used to address the host. Matsuda teaches discovery of network services by a 'DHCP Discover broadcast' across the network looking for a DHCP server (Matsuda: pages 1-2, para 11). This explicitly illustrates the discovery of the DHCP server and DHCP services to establish an IP address for the client. The plurality of protocols is taught as by the presence of DNS, DHCP protocols and the service discovery to gather configuration information. Since a plurality represents more than one and DNS and DHCP each represent one-network configuration protocols, the citation meets the limitation.

Applicant argues a single 'unique' protocol is used. Matsuda shows DNS and DHCP protocols are searched for in addition to service discovery. Matsuda teaches a unique protocol is used to gather individual lists of services. This protocol meets the limitation because it is used with DNS and DHCP, all qualified as network configuration protocols for network discover.

With regards to the protocols executed sequentially, Matsuda teaches in text and drawing, the order of the running of the protocols. Figure 6 and Page 6, para 60 show DHCP then DNS and service discovery. The limitation only states the protocols are executed sequentially. It does not define past the art of record or further define that sequence.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number 571-272-3982.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone numbers for the

organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner whose telephone number is 571-272-3982.

Benjamin R Bruckart
Examiner
Art Unit 2155

BRB

SAEED NAJJAR
PRIMARY EXAMINER